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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☐ Declaration Submitted with Initial Filing      OR      ☒ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	1D0015 US
First Named Inventor	YIN, EDWARD M.
<b>COMPLETE IF KNOWN</b>	
Application Number	09 / 789,180
Filing Date	02 / 19 / 01
Group Art Unit	2812
Examiner Name	

**As a below named inventor, I hereby declare that:**

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MULTI-BEAM MULTI-COLUMN ELECTRON  
BEAM INSPECTION SYSTEM

*(Title of the Invention)*

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 02 / 19 / 2001 as United States Application Number or PCT International

Application Number  and was amended on (MM/DD/YYYY)  (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

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## DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☐ Customer Number or Bar Code Label ☐ OR ☒ Correspondence address below

Name JOHN MACAULAY, MULTIBEAM SYSTEMS, INC.

Address 2238 MARTIN AVENUE

City SANTA CLARA State CA ZIP 95050

Country USA Telephone 408 855 8400 x105 Fax 408 855 8488

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]) EDWARD M. Family Name or Surname YIN

Inventor's Signature Edward Yin Date 4/13/2001

Residence: City CUPERTINO State CA Country USA Citizenship US

Mailing Address 11249 PALOS VERDES COURT

City CUPERTINO State CA ZIP 95014 Country USA

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]) ALAN D. Family Name or Surname BRODIE

Inventor's Signature Alan D. Brodie Date 8/9/01

Residence: City PALO ALTO State CA Country USA Citizenship US

Mailing Address 998 VAN AUKEN CIRCLE

City PALO ALTO State CA ZIP 94303 Country USA

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box → ☐

PTO/SB/02A (11-00)

Approved for use through 10/31/2002. OMB 0851-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## DECLARATION

### ADDITIONAL INVENTOR(S)

Supplemental Sheet

Page 1 of 1

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
N. WILLIAM		PARKER	
Inventor's Signature <i>N William Parker</i>		Date <i>4/10/01</i>	
Residence: City	FAIRFIELD	State	CA
Country	USA	Citizenship	US
Mailing Address			
2611 BURRELL DRIVE			
City	FAIRFIELD	State	CA
ZIP	94533	Country	USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
FRANK CHING-FENG		TSAI	
Inventor's Signature <i>Frank Tsai</i>		Date <i>04/10/2001</i>	
Residence: City	SARATOGA	State	CA
Country	USA	Citizenship	TAIWAN
Mailing Address			
14600 D BIG BASIN WAY			
City	SARATOGA	State	CA
ZIP	95070	Country	USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City		State	
Country		Citizenship	
Mailing Address			
Mailing Address			
City		State	
ZIP		Country	

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



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FEB 12 2002

PILLSBURY WINTHROP LLP

FEBRUARY 06, 2002

PTAS

Under Secretary of Commerce  
Director of the United States

58884-071-5133

PILLSBURY WINTHROP LLP  
DAVID H. JAFFER  
2550 HANOVER STREET  
PALO ALTO, CA 94304

www.uspto.gov



\*101921812A\*



UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/30/2001

REEL/FRAME: 012367/0357  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

YIN, EDWARD M.

DOC DATE: 04/13/2001

ASSIGNOR:

BRODIE, ALAN D.

DOC DATE: 08/09/2001

ASSIGNOR:

PARKER, NORMAN WILLIAM

DOC DATE: 04/10/2001

ASSIGNOR:

TSAI, FRANK CHING-FENG

DOC DATE: 04/10/2001

ASSIGNEE:

ION DIAGNOSTICS, INC.  
2238 MARTIN AVENUE  
SANTA CLARA, CALIFORNIA 95050

SERIAL NUMBER: 09789180  
PATENT NUMBER:

FILING DATE: 02/19/2001  
ISSUE DATE:

012367/0357 PAGE 2

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

12-19-2001

Docket No.: 58884-027-5133 IDO-15US

Form 1595 (Modified)  
(Rev. 6-93)  
OMB No. 0651-0011 (exp. 4/94)  
Copyright 1994-97 LegalStar  
P08/REV02

ET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office



101921812

Tab settings → → → ▼ ▼ ▼ ▼ ▼

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy them of.

## 1. Name of conveying party(ies):

Yin, Edward M.  
Brodie, Alan D.  
Parker, Norman William  
Tsai, Frank Ching-Feng

OCT 30 2001

Additional names(s) of conveying party(ies) ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 4-13-01, 8-9-01, 4-10-01, 4-10-01

## 2. Name and address of receiving party(ies):

Name: Ion Diagnostics, Inc.

Internal Address: \_\_\_\_\_

Street Address: 2238 Martin AvenueCity: Santa Clara State: CA ZIP: 95050Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

## A. Patent Application No.(s)

09/789,180

## B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: DAVID H. JAFFERInternal Address: PILLSBURY WINTHROP LLP12/18/2001 6TON11 00000165 033975 0978918001 FC:581 40.00 CHStreet Address: 2550 HANOVER STREETCity: PALO ALTO State: CA ZIP: 94304

## 6. Total number of applications and patents involved:

17. Total fee (37 CFR 3.41):.....\$ 40.00

- ☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account  
☒ Authorized to be charged to deposit account

## 8. Deposit account number:

03,3975

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

DAVID H. JAFFER/REG. NO. 32,243

Name of Person Signing

Signature

Date

2

Total number of pages including cover sheet, attachments, and document:

10-29-01



## ASSIGNMENT OF APPLICATION

Docket Number: ID0015US

Whereas, the undersigned:

- |  |   |  |  |
|--|---|--|--|
| 1. Yin, Edward M.<br>11249 Palos Verdes Ct.<br>Cupertino, CA 95014 | 2. Brodie, Alan D.<br>998 Van Auken Circle<br>Palo Alto, CA 94303 | 3. Parker, Norman William<br>2611 Burrell Drive<br>Fairfield, CA 94533 | 4. Tsai, Frank Ching-Feng<br>14600 D Big Basin Way<br>Saratoga, CA 95070 |
|--|---|--|--|

hereinafter termed "Inventors", have invented certain new and useful improvements in

## Multi-Beam Multi-Column Electron Beam Inspection System

February 19, 2001

- ☐ for which an application for United States Patent was filed on February 19, 2001, Application No. 09/789,180.
- ☒ for which an application for a United States Patent was executed on 02192001, and

WHEREAS, Ion Diagnostics, Inc., a corporation of the State of CA, having a place of business at 2238 Martin Ave., Santa Clara, CA 95050, (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below:

Date: 04/13/2001Date: 08/09/2001Date: 04/10/2001Date: 04/10/2001

Edward Yin  
Alan D. Brodie  
N. William Parker  
Frank Tsai



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

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PILLSBURY WINTHROP LLP

58884-026-9462

58884-027-5133

Washington, DC 20231  
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FEBRUARY 06, 2002

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Under Secretary of Com  
Director of the United States

PILLSBURY WINTHROP LLP  
DAVID H. JAFFER  
2550 HANOVER STREET  
PALO ALTO, CA 98304



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UNITED STATES PATENT AND TRADEMARK OFFICE  
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RECORDATION DATE: 10/30/2001

REEL/FRAME: 012367/0328  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ION DIAGNOSTIC, INC.

DOC DATE: 08/14/2001

ASSIGNEE:

MULTIBEAM SYSTEMS, INC.  
2238 MARTIN AVENUE  
SANTA CLARA, CALIFORNIA 95050

SERIAL NUMBER: 09688730

PATENT NUMBER:

FILING DATE: 10/13/2000

ISSUE DATE:

SERIAL NUMBER: 09789180

PATENT NUMBER:

FILING DATE: 02/19/2001

ISSUE DATE:

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



2-19-2001



101921811

Deck t No.: 58884-IDO-12, IDO-15 US

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Patent and Trademark Office

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document ~~and~~ or copy thereof.

1. Name of conveying party(ies):

ION DIAGNOSTICS, INC.

10/30/01

OCT 30 2001

Additional names(s) of conveying party(ies) ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other

Execution Date: August 14, 2001

2. Name and address of receiving party(ies):

Name: Multibeam Systems, Inc.

Internal Address: \_\_\_\_\_

Street Address: 2238 Martin Avenue

City: Santa Clara State: CA ZIP: 95050

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

B. Patent No.(s)

09/688,730

09/789,180

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: DAVID H. JAFFER

Internal Address: PILLSBURY WINTHROP LLP

12/18/2001 GTON11 00000164 033975 09688730

01 FC:581 80.00 CH

Street Address: 2550 HANOVER STREET

City: PALO ALTO State: CA ZIP: 94304

6. Total number of applications and patents involved: 2

7. Total fee (37 CFR 3.41):.....\$ 80.00

☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account

☒ Authorized to be charged to deposit account

8. Deposit account number:

03,3975

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

DAVID H. JAFFER/REG. NO. 32,243

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

4

## **PATENT ASSIGNMENT**

WHEREAS, Ion Diagnostics, Inc., a California Corporation, with its principal place of business at 2238 Martin Avenue, Santa Clara, CA 95050, USA (hereinafter referred to as "Assignor"), is the owner of record of patents, patent applications, disclosures and/or inventions identified in Schedule A attached hereto (the "Patents").

WHEREAS, Multibeam Systems, Inc., a Delaware Corporation, with its principal place of business at 2238 Martin Avenue, Santa Clara, CA 95050, USA (hereinafter referred to as "Assignee") is desirous of acquiring Assignor's entire right, title and interest in and to the Patents granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee its entire right, title and interest in and to the Patents in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisional applications, reissues, continuations, continuations-in-part and reexaminations thereof, including, without limitation, the right to file foreign applications directly in the name of the Assignee, and the right to sue for past infringements, to be held and enjoyed by the Assignee and its successors and assigns for its use and benefit and of its successors and assigns as fully and entirely as the same would have been held and enjoyed by Assignor had this assignment, transfer and sale not been made. Assignor agrees to execute all instruments and documents required for the making and

prosecution of applications and Patents for the United States and any foreign Patents on the inventions, for litigation regarding the Patents, or for the purpose of protecting title to the Patents therefor.

Dated effective as of: August 14, 2001

Assignor.

ION DIAGNOSTICS, INC.

*N. William Parker*

By

Name: N. William Parker

Title: President

Schedule A

Title	Application Number	Filing Date
UNIFORM MOMENTUM ORTHOGONAL ACCELERATION TIME OF FLIGHT MASS SPECTROMETER WITH BEAM WIDTH CORRECTION	09/688730	10/13/2000
MULTI-BEAM MULTI-COLUMN ELECTRON BEAM INSPECTION SYSTEM	09/789180	02/19/2001



**PILLSBURY WINTHROP LLP**

2550 HANOVER STREET PALO ALTO, CA 94304-1115 650.233.4500 F: 650.233.4545

David H. Jaffer  
650.233.4510  
djaffer@PillsburyWinthrop.com

58884-026-9462 (IDO12)  
58884-027-5133 (IDO15)

October 29, 2001

U.S. Patent and Trademark Office  
BOX ASSIGNMENTS  
Washington, D.C. 20231

Re: Request for Recordation of Assignments from Inventors to Ion  
Diagnostics, Inc., and from Ion Diagnostics, Inc. to Multibeam Systems,  
Inc.

Dear Sir:

Please record the assignment documents enclosed. The documents establish the chain of title for the three patent applications listed below:

I. U.S. Patent Application Serial No. 09/688,730 (Our Reference: IDO-12)

The assignment from the inventors to Ion Diagnostics, Inc. is recorded at Reel/Frame No. 011237/0932.

A Assignment from Ion Diagnostics, Inc. to Multibeam Systems, Inc.  
(marked with tab "A").

II. U.S. Patent Application Serial No. 09/789,180 (Our Reference: IDO-15)

B. Assignment from inventors Yin, Brodie, Parker, and Tsai to  
Ion Diagnostics, Inc. (marked with tab "B").

A. Assignment from Ion Diagnostics, Inc. to Multibeam Systems, Inc.





PILLSBURY WINTHROP

October 29, 2001

Page 2

(marked with tab "A").

**The Commissioner is authorized to charge deposit account number 03,3975 for the recordation fees. Please acknowledge receipt of these materials by stamping the Office date on the enclosed, stamped self-addressed card.**

Respectfully submitted,

David H. Jaffer  
Reg. No. 32,243

Enclosures

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail No. EL 618 987 815 US in an envelope addressed to: U.S. Patent and Trademark Office, BOX ASSIGNMENTS, Washington, D.C. 20231 on October 29, 2001 by Judy Keeley.